

"liability is several only and is apportioned by proof of a defendant's share of the market at the time of the injury."³⁶ The Burke report offers no measure of the relevant supply network in question, provides no economic analysis that addresses a relevant supply network, provides no measure of "market shares,"³⁷ and does not detail the Shell Defendants' specific inputs (i.e., the volumes) into the supply chain by which Queens, New York, has drawn its gasoline supplies.

III. ANALYSIS OF THE "COMMINGLED PRODUCT THEORY" OR "MARKET SHARE THEORY"

A. Gasoline Supply Networks

1. Providing gasoline to meet consumer demand on the retail level is a complex process that begins far "upstream" of a final sale to an end-use consumer (i.e., producing crude oil and/or refining the crude oil to produce gasoline). Upon manufacture, gasoline is then moved "downstream" (i.e., toward a retail gasoline station) by means of a series of commercial transactions. These commercial transactions take place within (i.e., "vertical") or between (i.e., "horizontal") corporations and companies in provision of production, transportation, storage, distribution, and sale of the final product.
 - a) A number of companies have supply chain operations that begin upstream at the level of crude oil production or refinement and extend downstream to the level of gasoline retailing. An organizational structure of this type is commonly referred to in economics as one in which the corporate entity is "vertically integrated." Vertically integrated corporations could, for example, own refinery operations, pipelines to transport gasoline downstream, terminals to store the gasoline in an end-use marketplace, trucks to distribute gasoline to retail stations, and finally, would maintain a network of retail stations for final sale to end-use customers.

³⁶ Opinion and Order, *County of Suffolk, et al. v. Amerada Hess Corp. et al.*, 04-Civ. 5424, May 13, 2008, at footnote 72.

³⁷ As used throughout this report, and as generally used throughout this litigation, the term "market" refers to the supply network from which RFG or MTBE is drawn, as opposed to a relevant "market" as the term would be employed in antitrust analysis.



UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

In Re: Methyl Tertiary Butyl Ether ("MTBE")
Products Liability Litigation

Master File C.A. No.
1:00-1898 (SAS)
MDL 1358

This Document Relates to:

City of New York v. Amerada Hess Corp., et al., Case Number 04-CIV-3417

EXPERT REPORT OF W. DAVID MONTGOMERY

Dated: February 13, 2009

b. RFG delivered to NY Harbor by pipeline

69. For each identified source of ExxonMobil produced RFG, and for every year from 1995 through 2003, I calculated the amount of RFG delivered to NY Harbor (Exhibit 5).

Exhibit 5: ExxonMobil RFG Delivered to NY Harbor, 1995-2003

Thousands of Barrels

	Colonial Pipeline	Domestic Shipments	International Shipments	Total RFG Deliveries
1995	14,216	191	-	14,407
1996	8,873	60	540	9,473
1997	5,861	520	100	6,481
1998	4,508	265	-	4,773
1999	5,647	-	1,278	6,925
2000	8,264	-	1,412	9,676
2001	9,639	635	308	10,582
2002	9,269	-	470	9,739
2003	5,590	-	1,883	7,474

(i) Colonial Pipeline

70. To find ExxonMobil's percentage of RFG shipments to NY Harbor through Colonial Pipeline, I used data from both the FERC and Colonial Pipeline. My approach was based on the fact, that although RFG injected into Colonial Pipeline by ExxonMobil was commingled with that of other suppliers, I could measure the concentration of ExxonMobil RFG relative to the entire Colonial Pipeline RFG pool. Knowing this concentration, and also knowing the total shipments on Colonial Pipeline to Linden, New Jersey (NY Harbor), I could calculate ExxonMobil's share of the RFG deliveries to Linden for any given year by simply multiplying ExxonMobil's RFG concentration in the pipeline by the total amount of RFG that the pipeline delivered to Linden.

71. To calculate the annual flow of RFG into NY Harbor from all suppliers, I relied upon data provided by Colonial Pipeline.³⁶ These data allowed me to calculate total deliveries of ExxonMobil RFG into the pipeline for each year from 1995 through 2003.

72. Colonial Pipeline also provided data on ExxonMobil injections into its pipeline. The data in its raw form tabulates total annual injections by location, product type, and by the

³⁶ Transactional Data Received from the Colonial Pipeline Company pursuant to informal request.

(iii) Plantation Pipeline

93. It is possible for motor gasoline to flow from Plantation Pipeline into Colonial Pipeline at Collins, Mississippi and Greensboro, North Carolina. Furthermore, the Baton Rouge Refinery is connected to Plantation Pipeline. As a result, motor gasoline from the Baton Rouge refinery can enter Colonial Pipeline through Plantation Pipeline.

94. I calculated ExxonMobil injections from the Plantation Pipeline into Colonial Pipeline at Collins, Mississippi and Greensboro, North Carolina. From the Form EIA-810 data, I determined annual motor gasoline production at the Baton Rouge Refinery. From Colonial Pipeline data, I ascertained how much motor gasoline the Baton Rouge Refinery injected annually into Colonial Pipeline.⁴⁶ To be conservative, I assumed that all the motor gasoline produced at the refinery that was not injected into Colonial Pipeline was injected into Plantation Pipeline.⁴⁷ From FERC Form 6 data, I determined total annual injections into Plantation Pipeline from all sources.⁴⁸ By dividing ExxonMobil's annual injections into Plantation Pipeline by the total injections into it by all sources, I computed the concentration of ExxonMobil motor gasoline in Plantation Pipeline. I then multiplied this fraction by total injections into Colonial Pipeline in both Mississippi and North Carolina.⁴⁹ The result is the ExxonMobil-produced injections into Colonial Pipeline from Plantation Pipeline. I repeated this calculation for each year from 1992 through 1994. These volumes are included within the volumes for Colonial Pipeline in Exhibit 10.

b. Motor gasoline delivered to NY Harbor by water from domestic ports

95. I determined the amount of ExxonMobil's motor gasoline delivered by water from domestic ports to NY Harbor for the period 1992 through 1994 using a methodology that was almost identical to the approach that I used for RFG for the period from 1995 through 2003. I

⁴⁶ Transactional Data Received from the Colonial Pipeline Company pursuant to informal request.

⁴⁷ Production data was provided by the EIA upon the request of counsel. ExxonMobil had originally provided the Form EIA-810 data to the EIA as part of normal regulatory proceedings and requested a copy of the data back from the EIA for this analysis.

⁴⁸ U.S. FERC, "FERC Form 6: Annual Report of Pipeline Companies," Plantation Pipe Line Company, 1992-2003, pp. 600-602.

⁴⁹ U.S. FERC, "FERC Form 6: Annual Report of Pipeline Companies," Colonial Pipe Line Company, 1992-1994, 1997-2003, pp. 600-602.

For years 1995 and 1996, I was unable to find FERC Form 6 filings. I therefore used the Colonial Pipeline dataset as a proxy for the FERC data and calculated total injections in North Carolina by totaling the injections for Greensboro, North Carolina, where ExxonMobil was the shipping company (not tanking company) as the total injections in North Carolina.

EXHIBIT B



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February 13, 2009

Via Federal Express

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Re: Master File C.A. No. 1:00-1898 (SAS), MDL No. 1358
City of New York v. Amerada Hess, et al., 04 CV 3417

Dear Mr. Pejan:

On behalf of the Shell Defendants, enclosed is a Statement for Plaintiffs in the *City of New York* Case on the Toxicology Study Being Funded by Chevron, Exxon and Shell. Documents relevant to the Study were produced to you on February 11, 2009. In addition, we have enclosed from Rob Rule's files EQVRR-E0039661 - EQVRR-E0039669.

Regards,

Susan V. Watson

**STATEMENT FOR PLAINTIFFS IN THE *CITY OF NEW YORK* CASE ON THE
TOXICOLOGY STUDY BEING FUNDED BY CHEVRON, EXXON AND SHELL**

Overview

This report summarizes the background, objectives and protocols of a study being conducted by the Hamner Institutes for Health Sciences, formerly known as CIIT. The report also includes key documents. Additional documents are also being produced to plaintiffs separately. Some of these documents have also been produced previously.

The study consists principally of what the Hamner Institutes call a "Two-Year Combined Chronic Toxicity/Carcinogenicity Drinking Water Study in Wistar Rats." In brief, animals used in the study are being exposed to MTBE in drinking water. The exposure will last two years. At the conclusion, the animals will be analyzed for toxic or carcinogenic effects. The exposure phase of the study is expected to continue into 2009. The analysis and preparation of results should be completed sometime thereafter. The results are to be published in the scientific literature.

The study is being funded by Chevron, Exxon and Shell. BP also contributed to the initial plans for the study.

Summary of the Chronology and the Study

The concept of the study was first discussed among counsel for the funding companies and other companies in early 2004. In order to assure that the study is independent, objective and sound, the funding companies decided to retain a panel of independent experts to develop the protocols for the study, and an independent laboratory to conduct the study. Potential experts were interviewed in August 2004. In January and February 2005, representatives of the funding companies and the independent experts met to develop preliminary plans for the study. In March 2005, the chair of the independent panel informed EPA and the National Institutes of Environmental Health Sciences of the then-tentative plans for a potential study and sought recommendations and advice from EPA on the protocols for the study. In March and April 2005, the funding companies formally retained the members of the independent expert panel. In April 2005, the chair of that panel, the proposed principal investigator for the independent laboratory, and a toxicologist for one of the funding companies met with officials from EPA to discuss the plans for the study and to seek input from EPA.

Draft protocols for the study were circulated among the funding companies, the panel of experts and the laboratory in May 2005 and were revised over the following months. Draft documents to formalize the agreement and funding mechanisms were circulated among the funding companies in June 2005 and were revised over the following months. The protocol for the first phase of the study was executed in August 2005. The agreements among the funding companies were executed in November 2005.

The study was designed to proceed in five phases. Phase 1 involved selecting the type of rat to be used, and that phase continued into early 2006. Phase 2 involved selecting the dose of MTBE in drinking water to be administered to the rats, including palatability and stability of the drinking water solutions, which continued into mid-2006. Phase 3 involved developing a positive control for assessment of a certain nephropathy, which continued into the fall of 2006. Phase 4 involved an initial 13-week subchronic study, which lasted well into 2007. A final report of Phase 4 was prepared in November 2007. Phase 5 involves the actual dosing of the animals over two years, to be followed by the analysis and publication of reports. That phase began in 2007 and is expected to continue into 2009.

Plans for Publishing the Results of the Study

From the outset, the funding companies intended that the results of the study would be submitted to EPA and that the independent experts conducting the study would publish the results, whatever they may be. Thus, for example, the agreement between the funding companies and the laboratory states expressly: "Upon completion of this study and after the data has been submitted to U.S. EPA, CIIT [the laboratory conducting the study, now known as the Hamner Institutes for Health Sciences] will make every effort to publish the results in the peer review literature." *Memorandum of Understanding, Oct. 2005, Appendix A pp. 5-6.*

Phase 4 of the study, which was the 13-week subchronic study, resulted in a report dated November 14, 2007, a copy of which is produced herewith. The independent experts have arranged to present a summary of that report as a research poster at the annual conference of the Society of Toxicology in March 2008.

Phase 5 of the study, which involved the actual dosing of the animals over two years, is still being evaluated. Study updates were provided by the Hamner Institute from food and water data collected every four weeks. *See Email from Ed Bermudez to Expert Panel, March 13, 2008.* Minimal effects were observed over the course of the study. Those effects were limited to reduced water intake in males and females and increase in nephropathy in males. *See Final Abstract.*

Timeline and Documents

The following updates the table contained in the December 7, 2007, Statement for Plaintiffs in the *Suffolk* Case on the Toxicology Study Being Funded by Chevron, Exxon and Shell, and the documents submitted therewith. These documents and others relevant to the Study were produced to Plaintiff in the *City of New York* case on February 11, 2009.

Document Date	Title	Document Reference
January 23, 2009	211(b) - Draft Abstracts for Teratology Meeting Posters on 211(b) Developmental Toxicity Studies	EQNBDS-E 0187202

Document Date	Title	Document Reference
January 2009	Abstract: Developmental Toxicity Assessment of Inhaled Gasoline & Fuel Oxygenates in Rats	EQNBDS-E 0187203
January 2009	Abstract: Developmental Toxicity Assessment of Inhaled Gasoline and Gasoline/MTBE in Mice	EQNBDS-E 0187204
January 2008 to January 2009	Study Updates Nos. 17 to 38	EQNBDS-E 0187780 Bates numbers can be added for each study. They are not consecutively numbered.
December 9, 2008	Final Abstract	EQNBDS-E 0156574 – EQNBDS-E 0156575
November 2008	Further Evaluation of Carcinogenicity Studies Conducted by the Ramazzini Foundation	EQNBDS-E 0187127 – EQNBDS-E 0187188
September 15, 2008	Interim Report #16 – Fuels and Fuel Additives Health Effects Testing Regulation Pursuant to Section 211(b)(2) and 211(e) of the Clean Air Act	EQNBDS-E 0187206 – EQNBDS-E 0187211
June 23, 2008	Unaudited Draft MTBE: Two Year Chronic Drinking Water Toxicity Study in Wistar Rats 12 Month Sacrifice – Draft Pathology Report	EQNBDS-E 0187625 – EQNBDS-E 0187673
February 22, 2008	Review of RTI Report No. RTI/0209408.004, “Metabolism and Pharmacokinetics of Tertiary Butyl Alcohol in Male Rats: Pilot Study”	EQNBDS-E 0187214 – EQNBDS-E 0187222
February 11, 2008	Letter Regarding “Metabolism and Pharmacokinetics of Tertiary Butyl Alcohol in Male Rats: Pilot Study”	EQNBDS-E 0187477
January 31, 2008	MTBE Expert Panel Progress Report	EQNBDS-E 0187676 – EQNBDS-E 0187678
January 22, 2008	12 month Report and Found Dead Diagnosis	EQNBDS-E 0187588